

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-73 (Canceled)

74. (New): A recognition molecule comprising an amino acid sequence which contains

- (i) the amino acid sequence SEQ ID NO. 1 and
- (ii) the amino acid sequence SEQ ID NO. 2 or 3 and
- (iii) the amino acid sequence SEQ ID NO. 4, 5 or 6,

and specifically binds the core 1 antigen.

75. (New): The recognition molecule according to claim 74, further comprising an amino acid sequence which contains

- (i) the amino acid sequence SEQ ID NO. 7 or 8 or 9 and
- (ii) the amino acid sequence SEQ ID NO. 10 or 11 and
- (iii) the amino acid sequence SEQ ID NO. 12 or 13,

and specifically binds the core 1 antigen.

76. (New) The recognition molecule according to claim 74, wherein the antibody framework sequences

- a) FRH1, FRH2, FRH3 and FRH4 for the variable heavy chain VH are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRH1 in position	1	Q or E
	2	V
	3	Q, K or T
	4	L
	5	K or V
	6	E or Q
	7	S
	8	G

9	A
10	E
11	L or V
12	V or K
13	R or K
14	P
15	G
16	T or A
17	S
18	V
19	K
20	I or V
21	S or P
22	C
23	K
24	A, V, S or T
25	S
26	G
27	Y, F, S or D
28	T
29	F, L or I
30	T
for FRH2 in position	
36	W
37	V
38	K or R
39	Q
40	R or A
41	P
42	G
43	H or Q
44	G

45	L
46	E
47	W or R
48	I or M
49	G
for FRH3 in position	
66	K or R
67	A or V
68	T
69	L or M
70	T
71	A, L or T
72	D
73	T
74	S
75	S or T
76	S
77	T
78	A
79	Y
80	M
81	Q or E
82	L
82a	S
82b	S or R
82c	L
83	T or R
84	S
85	E
86	D
87	S or T
88	A

	89	V
	90	Y
	91	F or Y
	92	C
	93	A
	94	Y, K or R
for FRH4 in position	103	W
	104	G
	105	Q
	106	G
	107	T
	108	T, S or L
	109	V or L
	110	T
	111	V
	112	S
	113	S or A

b) FRL1, FRL2, FRL3 and FRL4 for the variable light chain VT, are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRL1 in position	1	D
	2	I, V or L
	3	Q or L
	4	M
	5	T
	6	Q
	7	T or S
	8	P
	9	L
	10	S
	11	L
	12	P

13	V
14	S or T
15	L or P
16	G
17	D or E
18	Q or P
19	A
20	S
21	I
22	S
23	C
for FRL2 in position	35 W
	36 Y
	37 L
	38 Q
	39 K
	40 P
	41 G
	42 Q
	43 S
	44 P
	45 K or Q
	46 L
	47 L
	48 I or V
	49 Y
for FRL3 in position	57 G
	58 V
	59 P
	60 D
	61 R

62	F	
63	S	
64	G	
65	S	
66	G	
67	S	
68	G	
69	T	
70	D	
71	F	
72	T	
73	L	
74	K	
75	I	
76	S	
77	R	
78	V	
79	E	
80	A	
81	E	
82	D	
83	L or V	
84	G	
85	V	
86	Y	
87	Y	
88	C	
for FRL4 in position	98	F
	99	G
	100	G or Q
	101	G

102	T
103	K
104	L
105	E
106	I or L
106a	K
107	R
108	A.

77. (New): The recognition molecule according to claim 74, wherein the recognition molecule comprises a combination of sequences SEQ ID Nos. 46 and 80, or SEQ ID Nos. 47 and 81, or SEQ ID Nos. 48 and 80, or SEQ ID Nos. 50 and 80, or SEQ ID Nos. 53 and 82, or SEQ ID Nos. 52 and 83, or SEQ ID Nos. 55 and 83, or SEQ ID Nos. 54 and 80, or SEQ ID Nos. 51 and 83, or SEQ ID Nos. 49 and 80, or SEQ ID Nos. 56 and 90, or SEQ ID Nos. 57 and 90, or SEQ ID Nos. 57 and 86, or SEQ ID Nos. 58 and 87, or SEQ ID Nos. 56 and 91, or SEQ ID Nos. 59 and 91, or SEQ ID Nos. 60 and 87, or SEQ ID Nos. 61 and 90, or SEQ ID Nos. 56 and 88, or SEQ ID Nos. 56 and 85, or SEQ ID Nos. 59 and 90, or SEQ ID Nos. 62 and 90, or SEQ ID Nos. 59 and 86, or SEQ ID Nos. 74 and 92, or SEQ ID Nos. 63 and 87, or SEQ ID Nos. 74 and 87, or SEQ ID Nos. 74 and 89, or SEQ ID Nos. 74 and 85, or SEQ ID Nos. 64 and 86, or SEQ ID Nos. 74 and 86, or SEQ ID Nos. 63 and 86, or SEQ ID Nos. 65 and 85, or SEQ ID Nos. 65 and 86, or SEQ ID Nos. 66 and 85, or SEQ ID Nos. 67 and 87, or SEQ ID Nos. 68 and 86, or SEQ ID Nos. 72 and 88, or SEQ ID Nos. 69 and 90, or SEQ ID Nos. 70 and 90, or SEQ ID Nos. 69 and 92, or SEQ ID Nos. 73 and 86, or SEQ ID Nos. 69 and 89, or SEQ ID Nos. 71 and 92, or SEQ ID Nos. 56 and 86, or SEQ ID Nos. 65 and 92.

78. (New): The recognition molecule according to claim 74, wherein said recognition molecule is a single-chain antibody fragment, a multibody, a

Fab fragment, a fusion protein of an antibody fragment with peptides or proteins and/or an immunoglobulin of the IgG, IgM, IgA, IgE, IgD isotypes and/or subclasses thereof.

79. (New): A construct comprising the recognition molecules according to claim 74, wherein the recognition molecules are fused, chemically coupled, covalently or non-covalently associated with (i) immunoglobulin domains of various species, (ii) enzyme molecules, (iii) interaction domains, (iv) domains for stabilization, (v) signal sequences, (vi) fluorescent dyes, (vii) toxins, (viii) catalytic antibodies, (ix) one or more antibodies or antibody fragments with different specificity, (x) cytolytic components, (xi) immunomodulators, (xii) immunoeffectors, (xiii) MHC class I or class II antigens, (xiv) chelating agents for radioactive labelling, (xv) radioisotopes, (xvi) liposomes, (xvii) transmembrane domains, (xviii) viruses and/or (xix) cells.

80. (New): A method for the production of recognition molecules according to claim 74, comprising:

- (i) incorporating one or more nucleic acid molecules encoding the amino acid sequences of at least one recognition molecule according to any of claims 1 to 5 in a virus or in a host cell;
- (ii) culturing the host cells or the virus under suitable conditions; and
- (iii) obtaining the recognition molecule, the effector cell bearing the recognition molecule, or the virus specifically recognizing a core 1 antigen.

81. (New): Use of a recognition molecule according to claim 74 in the prophylaxis, prevention, diagnosis, reduction, therapy, follow-up and/or aftercare of tumor diseases and/or metastases.

82. (New): The use according to claim 81, wherein the recognition molecule is a non-labelled recognition molecule, which corresponds to an IgM or IgG or has

been derived therefrom.

83. (New) The use according to claim 81, wherein the recognition molecules are multibodies.

84. (New) Use of a construct according to claim 79 in the prophylaxis, prevention, diagnosis, reduction, therapy, follow-up and/or aftercare of tumor diseases and/or metastases.